

RESEARCH

Open Access



Influence of abuse and disrespect during childbirth on early initiation of breastfeeding

Ana Ballesta-Castillejos¹, Julián Rodríguez-Almagro^{2*}, Silvia García De-Mateos³, Inmaculada Ortiz-Esquinas⁴, Juan Miguel Martínez-Galiano⁵ and Antonio Hernández-Martínez²

Abstract

Background An increasing trend among women and professionals is recognizing the existence of abuse and disrespect by professionals toward women during childbirth. The promotion of breastfeeding is a priority objective, and few studies address the relationship between this mistreatment during birth and its impact on breastfeeding rates. Our objective was to evaluate the relationship between abusive treatment and the disrespect that women receive from professionals during childbirth with the early initiation and maintenance of breastfeeding on hospital discharge.

Methods A cross-sectional observational study conducted in Spain with women who had become mothers in 2022. The data were obtained through an online questionnaire distributed via women's associations in which breastfeeding rates in the first hour of life and upon hospital discharge were included as dependent variables, and sociodemographic, obstetric, breastfeeding variables, and abuse and lack of respect during childbirth were included as independent variables. Crude Odds Ratio (OR) and adjusted (aOR) were calculated with their respective 95% CI.

Results 2048 women participated. The perception of abuse and disrespect, expressed as higher scores on the CARE-MQ scale, showed a lower probability of breastfeeding in the first hour of life by 0.69 to 0.43 (percentile 50–74 aOR:0.69; 95% CI:0.49, 0.97; p74–89 aOR:0.59; 95% CI:0.39, 0.87; $p > 90$ aOR:0.43; 95% CI:0.32, 0.76). Attending more than 5 prenatal education sessions, skin-to-skin contact, and previous breastfeeding experience increase the probability of early initiation of breastfeeding and maintaining it when the woman is discharged from the hospital.

Conclusions Women who perceive more abuse and disrespect from professionals during childbirth are less likely to initiate breastfeeding early; however, this relationship is not observed when assessing breastfeeding at hospital discharge.

Keywords Breastfeeding, Disrespect, Mistreatment, Obstetric violence

*Correspondence:

Julián Rodríguez-Almagro
julianj.rodriguez@uclm.es

¹Universidad de Castilla la Mancha, Albacete, España

²Universidad de Castilla la Mancha, Ciudad Real, España

³Gerencia de Atención Integrada de Ciudad Real, Ciudad Real, España

⁴Hospital Universitario Reina Sofía de Córdoba, Córdoba, España

⁵Universidad de Jaén, CIBER de Epidemiología y Salud Pública (CIBERESP), Jaén, España



© The Author(s) 2025. **Open Access** This article is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License, which permits any non-commercial use, sharing, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if you modified the licensed material. You do not have permission under this licence to share adapted material derived from this article or parts of it. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by-nc-nd/4.0/>.

Background

Abuse and disrespect that women receive from health professionals during childbirth is a growing issue worldwide. The World Health Organization (WHO) itself has warned of the high number of women who experience disrespectful and abusive treatment and currently promotes respectful childbirth care [1]. This call to attention from the WHO, together with the increasing complaints and social movements, has made institutions consider reviewing their care practice during childbirth to introduce improvements in this regard [2].

There is no consensus as to the term to use to refer to this abuse or disrespectful treatment, just as there is no consensus on what behaviors are classified as abuse or disrespectful treatment. Thus, different terms such as “obstetric violence”, “mistreatment”, “abuse” and “disrespect” can be found to refer to a form of violence against women that occurs during pregnancy, childbirth, and the postpartum period and that violates human and reproductive rights [3–5].

The magnitude of the real impact that this inadequate treatment has on the health of mothers and newborns cannot be precisely determined [3, 6, 7]. Prevalence figures worldwide vary widely, between 15 and 91%, depending on the country and the method used to measure it [6]. In Spain, a cross-sectional study conducted in 2020 found that 67.4% of women had perceived some form of abuse in their childbirth and postpartum processes, whether physical, verbal, or psychoaffective [6].

Disrespectful treatment during childbirth has been studied mainly from a psychological perspective [8], relating it, for example, to postpartum depression or post-traumatic stress disorder [6, 9]. These psychological issues are associated with greater difficulties in terms of breastfeeding [10, 11] and, in turn, are more prevalent in women who have experienced disrespectful treatment during childbirth [6, 9]. Therefore, an association between disrespectful treatment and breastfeeding is likely, although the existing evidence in this aspect is currently scarce [12, 13].

The importance of early initiation of breastfeeding is recognized worldwide and reflected in multiple clinical practice guidelines and global policy and guidance initiatives [10]. Initiation of breastfeeding in the first hour of life was associated with prolonged breastfeeding duration [11] and reduced infant mortality, especially in low-income countries [12, 13].

Multiple factors associated with successful breastfeeding have been studied [14, 15]. However, few studies address the relationship between professional care received, especially obstetric violence or abuse, and its impact on the rates of early initiation of breastfeeding and its maintenance.

The relationship between obstetric violence and breastfeeding is an understudied area that deserves attention. Experiences of abuse, lack of autonomy, or physical trauma during childbirth could affect a woman's confidence and emotional well-being, and as a result influence breastfeeding. Understanding this connection is key to designing interventions that promote respectful care and improve maternal and child health. Therefore, in this study, we propose to evaluate the relationship between abusive treatment and the disrespect that women receive from professionals during childbirth with the early initiation and maintenance of breastfeeding on hospital discharge.

Methods

This cross-sectional observational study was carried out in Spain with women who were members of breastfeeding/parenting associations and had given birth in 2022. The inclusion criteria were women 18 years and over who understood Spanish and had given birth in 2022. Women whose child was admitted to NICU after delivery were excluded. Data were collected from January to June 2023. The study was approved by the Clinical Research Ethics Committee of the Mancha-Centro Hospital (197-C), the Reina Sofia Hospital in Córdoba (5615), and the University Hospital of the Integrated Care Management of Ciudad Real (C-600).

This study is part of a broader global project funded by the European Union and the Carlos III Health Institute (PI22/00541), which examines disrespectful treatment during childbirth care and its potential consequences on maternal and infant health, from which other publications have been derived [16].

The maximum modeling criterion was used to estimate the sample size; this requires 10 events for each independent variable that will be included in the multivariate analysis [17]. To calculate the sample size, we took the study by Vila-Candel et al. as a reference [18]. Their study was conducted in Spain in 2019 and showed that the rate of no breastfeeding upon hospital discharge reached 32% [18]. With these data, a minimum of 310 women was required to include 31 independent variables, and a total of 975 women would be needed. However, the research team decided to include all women who met the inclusion criteria to obtain more accurate estimates.

To recruit the sample, breastfeeding and parenting associations in the different Spanish provinces were contacted via email, explaining the project's objectives and inviting them to participate. The leaders of these associations were responsible for emailing the questionnaire to all their members.

The information needed to conduct the study was obtained from an anonymous, self-administered online questionnaire consisting of 31 items (16 yes/no

questions, 2 questions with two options, 8 questions with three options, 2 questions with four options, and 3 questions with five options) on sociodemographic, obstetric, and breastfeeding variables, as well as from the validated CARE-MQ scale to determine the perception of inadequate treatment during childbirth [19]. Before completing the questionnaire, participants were required to read information about the objective of the study and give their consent to participate.

Regarding which variables to include in the model, these were determined based on different reviews of the physical, psychological, and social factors that influence the initiation of breastfeeding [14, 15, 20]. The variables included in this study were:

Breastfeeding within the first hour and at hospital discharge (last 24 h) as dependent variables.

As independent variables:

- Sociodemographic variables: educational level, family income, partner support [21], planned pregnancy.
- Obstetric and BF variables: gestational age at delivery, twin pregnancy, previous cesarean section, number of pregnancies, number of vaginal births, number of abortions, hypertension during pregnancy [22], gestational diabetes [22], threatened pre-term labor [22], fertility treatment, parity [21], antenatal classes, induction of labor [22], birth plan, place of birth, problems during birth, use of oxytocin, epidural anesthesia, nitrous oxide, general anesthesia, type of birth [21], episiotomy, third- to fourth-degree tear, skin-to-skin [22], previous breastfeeding experience, and maternal admission after delivery.
- Abuse and disrespect during childbirth was measured using the “Abuse and Respect During Childbirth Assessment Questionnaire” (CARE-MQ) [19]. This questionnaire comprises 20 Likert-type questions about different practices and situations that can be related to abuse and disrespect during childbirth. Each question has three response options: “It did not occur during my birth” (0 point), “It occurred, but it did not affect me” (1 point), “It occurred and it affected me a little” (2 points) and “It occurred and it affected me a lot” (3 points). Scores range from 0 points to 60 points. Scores can be categorized according to percentile distribution (≤ 50 th percentile, 51st–75th percentile, 75th–90th percentile, > 90 th percentile). Regarding the psychometric characteristics evaluated for this scale, internal consistency (Cronbach’s $\alpha = 0.903$), temporal stability (ICC = 0.927), and convergent validity ($r = -0.66$) were adequate and excellent for the first two criteria.

Data were analyzed descriptively using absolute and relative frequencies for categorical variables. Next, a Chi-square analysis was performed between sociodemographic and clinical variables and perception of abuse and disrespect during childbirth. Subsequently, an analysis was performed using binary and multivariate logistic regression, and crude and adjusted odds ratios (aOR) with 95% confidence intervals (95% CI) were calculated.

Results

The study included 2048 women, after excluding 308 women whose child was admitted to NICU after delivery, as their circumstances prevented the early initiation of breastfeeding, and 12 women who had suffered a stillbirth. The mean age was 33.6 years (SD = 4.05 years), 63.2% were primiparous (1295), and 58.5% (1198) had a vaginal delivery. CARE-MQ scores were grouped into percentiles: 49.6% of participants (1016) were below the 50th percentile, 24.8% (509) were between the 51st and 74th percentile, 14.1% (287) were between the 75th and 89th percentiles, and 11.5% (236) were above the 90th percentile. Regarding BF, 78.85% ($n = 1613$) initiated BF within the first hour of the newborn’s life. Detailed information on the scores of each item can be found in Table 1.

Next, a bivariate and multivariate analysis was carried out to determine the factors associated with the initiation of breastfeeding in the first hour. In the multivariate analysis, we observed four factors associated with the initiation of breastfeeding in the first hour (Table 2). The perception of abuse and disrespect, expressed as higher scores on the CARE-MQ scale, was one of the factors (Fig. 1a). Thus, the greater the perception of abuse or disrespect during birth, the lower the probability of initiating breastfeeding. For scores p_{50-74} , the aOR was 0.69 (95% CI: 0.49, 0.97). For scores between p_{75} and p_{89} , the aOR was 0.59 (95% CI: 0.39, 0.87), and for scores $p > 90$, the aOR was 0.43 (95% CI: 0.32, 0.76).

We found that skin-to-skin contact increases early initiation of breastfeeding between 2.6 and 13.3-fold (< 50 min aOR: 2.69; 95% CI: 1.70, 4.29; 50–120 min aOR: 9.64; 95% CI: 5.61, 16.55; > 120 min aOR: 13.33; 95% CI: 8.55, 20.80). Previous breastfeeding experience represents an increase of 3.57-fold (aOR: 3.57; 95% CI: 1.09, 11.63), the respected birth plan and increases of 1.58-fold (aOR: 1.58; 95% CI: 1.01, 2.42), and having attended more than five maternal education classes increases the probability of early initiation of breastfeeding by 1.56-fold (aOR: 1.56; 95% CI: 1.01, 2.42).

The next step was to determine the factors associated with maintaining BF at hospital discharge, which, in the present study, was 74.7% ($n = 1497$) (Table 3). In the multivariate analysis, we observed six factors associated with breastfeeding at discharge (Table 3). On the one hand,

Table 1 Sample characteristics

VARIABLE	n (%) n=2048
CARE-MQ	
Percentile < 50	1016 (49.6)
Percentile 50–74	509 (24.8)
Percentile 75–89	287 (14.1)
Percentile > 90	236 (11.5)
Education level	
No education	1 (0.1)
Primary level	14 (0.7)
Secondary level	79 (3.8)
Baccalaureate/A-levels	419 (20.5)
University level	1535 (74.9)
Family income	
<1000	33 (1.6)
1000–1999	342 (16.7)
2000–2999	725 (35.4)
3000–3999	583 (28.5)
≥4000	365 (17.8)
Partner support	
None	30 (1.5)
Little	43 (2.1)
Some	119 (5.8)
Sufficient	492 (24.0)
A lot	1364 (66.6)
Planned pregnancy	
No	151 (7.4)
Yes	1897 (92.6)
Gestational age at birth	
Term	1994 (97.4)
Moderate premature	54 (2.6)
Twin pregnancy	
No	2026 (98.9)
Yes	20 (1.1)
Previous cesarean	
No	1541 (75.2)
One	464 (22.7)
Two or more	43 (2.1)
Number of pregnancies	
One	1295 (63.2)
Two	551 (26.9)
Three or more	202 (9.9)
Number of vaginal births	
None	427 (20.8)
One	1259 (61.5)
Two or more	362 (17.7)
Number of miscarriages	
None	1480 (72.3)
One	417 (20.4)
Two or more	151 (7.3)
HT	
No	1876 (91.6)
Yes	172 (8.4)
Diabetes	
No	1896 (92.6)

Table 1 (continued)

VARIABLE	n (%) n = 2048
CARE-MQ	
Yes	152 (7.4)
Threatened pre-term labor	
No	1938 (94.6)
Yes	110 (5.4)
Fertility treatment	
No	1776 (86.7)
Yes	272 (13.3)
Parity	
Primiparous	1572 (76.7)
Multiparous	476 (23.3)
Induction of Labor	
No	1131 (55.2)
Yes	917 (44.8)
Antenatal classes	
No	319 (15.7)
Yes, but less than 5 classes	405 (19.7)
Yes, at least 5 classes	1324 (64.6)
Birth plan	
No	848 (41.4)
Yes, but it wasn't respected	299 (14.6)
Yes, and was mostly respected	901 (44.0)
Location of birth	
Public or state-contracted	1627 (79.4)
Private	374 (18.3)
Childbirth facilities	12 (0.6)
Home	35 (1.7)
Problems during childbirth	
No	1617 (78.9)
Yes	431 (21.1)
Use of oxytocin	
No	830 (40.5)
Yes	1218 (59.5)
Epidural	
No	369 (18.1)
Yes	1679 (81.9)
Nitrous oxide	
No	1989 (97.1)
Yes	60 (2.9)
General anesthesia	
No	1959 (95.6)
Yes	89 (4.4)
Type of birth	
Eutocic	1198 (58.6)
Instrumental	405 (19.7)
Planned cesarean section	88 (4.3)
Emergency cesarean section	357 (17.4)
Episiotomy	
No	1611 (78.6)
Yes	437 (21.4)
Tear grade III-IV	
No	1594 (77.8)
Yes	94 (22.2)

Table 1 (continued)

VARIABLE	n (%) n = 2048
CARE-MQ	
Breastfeeding previous children	
No, this is my first child	1580 (77.2)
I did not breastfeed my previous children	37 (1.8)
Yes	431 (21.0)
Previous breastfeeding experience	
No	1580 (77.2)
Yes	468 (22.8)
Skin-to-skin	
No	277 (13.5)
Yes but < 50 min	217 (10.6)
Between 50–120 min	250 (12.2)
Yes, at least 120 min	1304 (63.7)
Maternal admission following birth	
No	2021 (98.7)
Yes	27 (1.3)

we found that maternal age, prematurity, multiple gestation, not having breastfed previous children, and neonatal admission decreased the probability of maintaining breastfeeding at discharge by 0.96 (aOR: 0.96; 95% CI: 0.93, 0.99), 0.50 (aOR: 0.50; 95% CI: 0.28, 0.88), 0.33 (aOR: 0.33; 95% CI: 0.12, 0.94), 0.20 (aOR: 0.20; 95% CI: 0.06, 0.65) and 0.74 (aOR: 0.74; 95% CI: 0.59, 0.92) times, respectively.

In contrast, attending at least five antenatal classes increased the likelihood of maintaining breastfeeding at discharge by 2.12-fold (aOR: 2.19; 95% CI: 1.45, 3.07), an income level above 3000 euros increased it between 2.96 and 2.50-fold (aOR: 2.96; 95% CI: 1.26, 6.95; aOR: 2.50; 95% CI: 1.05, 5.95), and initiation of breastfeeding within the first hour increased the possibility by 4.21-fold (aOR: 4.21; 95% CI: 3.13, 5.66). At this time, the perception of abuse or disrespect (CARE-MQ) was not observed as a potential risk factor for abandoning breastfeeding at discharge (Fig. 1b).

Discussion

An increased maternal perception of abuse and disrespect from healthcare professionals during birth was associated with a lower probability of starting breastfeeding in the first hour of life. Regarding breastfeeding at discharge, maternal age, twin pregnancy, prematurity, not having breastfed previous children, and neonatal admission were the most influential factors decreasing the probability of breastfeeding at discharge. In contrast, income level, initiation of breastfeeding within the first hour, and attendance at maternal education classes increased the chances of maintaining breastfeeding at hospital discharge.

The results reflect that the greater the maternal perception of disrespect, assessed by percentiles on the

CARE-MQ scale, the lower the probability of starting breastfeeding in the first hour after delivery. This relationship is not observed when we assess breastfeeding at hospital discharge. The literature on the relationship between abuse during childbirth and breastfeeding is scarce; currently, only one article on the subject has been found, published in 2023 in Brazil by Leite et al. [23]. Although the study by Leite et al. does not focus on breastfeeding initiation, it observes that women who perceived higher levels of abuse and disrespect during childbirth were less likely to breastfeed at hospital discharge, particularly those who had a vaginal birth [23].

One of the factors associated with the initiation of breastfeeding is maternal age. In this regard, there are conflicting results in the literature, as some studies show that the older the mother, the greater the probability of breastfeeding and doing so for longer [24, 25]. These data contrast with those found in the present study, which show that the older the mother, the higher the rate of breastfeeding at discharge. However, some studies show the opposite trend [24, 26]. These discrepancies are likely caused not only by age but also by factors such as parity or educational level [26]. However, a recent review of factors associated with breastfeeding in the first 6 months [27] does not include maternal age as a factor with moderate or strong evidence regarding breastfeeding rates. Mothers with multiple births have lower breastfeeding initiation rates [28, 29], as found in the present study.

On the other hand, a neonatal hospital admission has been identified as one of the leading factors that interfere with the establishment of breastfeeding [30, 31], as there may be medical conditions that make breastfeeding difficult, and in many cases, the mother and newborn are separated. In line with previous literature, neonatal admission was identified as a factor in the present

Table 2 Sociodemographic and obstetric factors of women in this study based on the initiation of breastfeeding during the first hour of life. Multivariate analysis

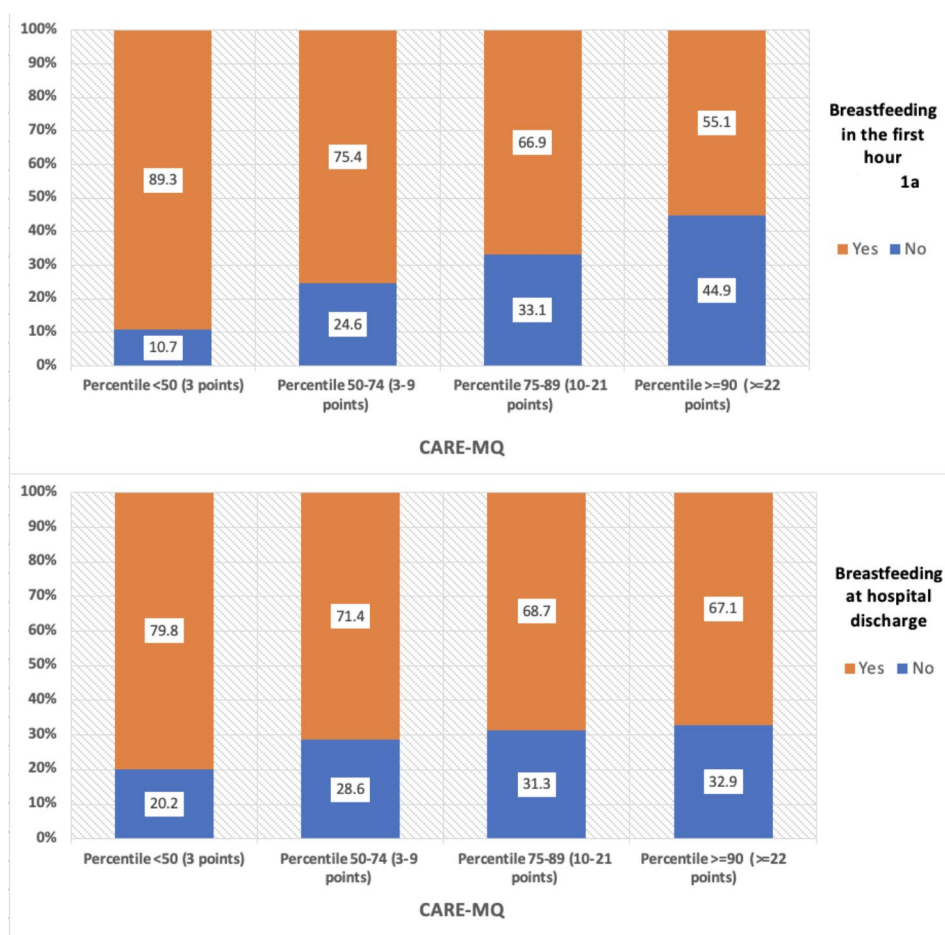
	Initiation of breastfeeding in the first hour of life		Bivariate analysis		Multivariate analysis	
	No n (%) N=435	Yes n (%) N=1613	OR 95% CI	P value	OR 95% CI	P value
Maternal age Mean (SD)	33.6 (4.05)	33.5 (3.98)	0.99 (0.97, 1.02)	0.671	0.99 (0.95, 1.03)	0.600
CARE-MQ (Grouped by percentiles)				< 0.001		0.001
Percentile < 50	109 (10.7)	907 (89.3)	1		1	
Percentile 50–74	125 (24.6)	384 (75.4)	0.36 (0.27, 0.49)	< 0.001	0.69 (0.49, 0.97)	0.023
Percentile 75–89	95 (33.1)	192 (66.9)	0.24 (0.17, 0.33)	< 0.001	0.59 (0.39, 0.87)	0.002
Percentile ≥ 90	106 (44.9)	130 (55.1)	0.14 (0.10, 0.20)	< 0.001	0.43 (0.32, 0.76)	< 0.001
Family income				0.078		0.804
< 1000 euros	9 (27.3)	24 (72.7)	1		1	
1000–1999 euros	91 (26.6)	251 (73.4)	1.03 (0.46, 2.30)	0.934	1.14 (0.42, 3.07)	0.791
2000–2999 euros	150 (20.7)	575 (79.3)	1.43 (0.65, 3.15)	0.366	1.14 (0.43, 3.08)	0.791
3000–3999 euros	114 (19.6)	469 (80.4)	1.54 (0.69, 3.40)	0.284	0.99 (0.37, 2.71)	0.998
≥4000 euros	71 (19.5)	294 (80.5)	1.55 (0.69, 3.48)	0.286	0.92 (0.33, 2.52)	0.870
Partner support				0.026		0.594
None	11 (36.7)	19 (63.3)	1		1	
Little	10 (23.3)	33 (76.7)	1.91 (0.68, 5.32)	0.216	2.11 (0.60, 7.47)	0.243
Some	36 (30.3)	83 (69.7)	1.33 (0.57, 3.09)	0.500	1.14 (0.40, 3.25)	0.812
Sufficient	105 (21.3)	387 (78.7)	2.13 (0.98, 4.62)	0.055	1.59 (0.60, 4.21)	0.348
A lot	273 (20.0)	1091 (80.0)	2.31 (1.08, 4.91)	0.029	1.53 (0.59, 3.97)	0.377
Planned pregnancy				0.848		0.797
No	33 (21.9)	118 (78.1)	1		1	
Yes	402 (21.2)	1495 (78.8)	1.04 (0.69, 1.55)		0.94 (0.56, 1.55)	
Gestational age at birth				0.874		0.270
Term	424 (21.3)	1570 (78.7)	1		1	
Moderate premature	11 (20.4)	43 (79.6)	1.05 (0.54, 2.06)		1.65 (0.68, 4.08)	
Twin pregnancy				0.040		0.674
No	427 (21.1)	1599 (78.9)	1		1	
Yes	8 (40.0)	12 (60.0)	0.40 (0.16, 0.98)		0.78 (0.24, 2.50)	
Previous cesarean				< 0.001		0.434
No	208 (13.5)	1333 (86.5)	1		1	
One	211 (37.2)	253 (54.5)	0.18 (0.14, 0.23)	< 0.001	1.54 (0.36, 6.54)	0.558
Two or more	16 (37.2)	27 (62.8)	0.26 (0.14, 0.49)	< 0.001	0.94 (0.06, 14.43)	0.966
Number of pregnancies				< 0.001		0.066
One	314 (24.2)	981 (85.1)	1		1	
Two	82 (14.9)	469 (85.1)	1.83 (1.40, 2.39)	< 0.001	1.32 (0.80, 2.17)	0.281
Three or more	39 (19.3)	163 (80.7)	1.33 (0.92, 1.94)	0.125	0.65 (0.29, 1.43)	0.278
Number of vaginal births				< 0.001		0.543
None	215 (50.4)	212 (49.6)	1		1	
One	196 (15.6)	1063 (84.4)	5.50 (4.31, 7.01)	< 0.001	1.11 (0.26, 4.76)	0.885
Two or more	24 (6.6)	338 (93.4)	14.28 (9.05, 22.52)	< 0.001	2.23 (0.14, 25.68)	0.570
Number of miscarriages				0.148		0.180
None	300 (24.7)	1180 (79.7)	1		1	
One	103 (24.7)	314 (75.3)	0.77 (0.60, 1.00)	0.051	0.68 (0.44, 1.04)	0.076
Two or more	32 (21.2)	119 (78.8)	0.94 (0.62, 1.42)	0.789	0.91 (0.46, 1.82)	0.793
HT during pregnancy				0.099		0.530
No	390(20.8)	1486 (79.2)	1		1	
Yes	45 (26.2)	127 (73.8)	0.74 (0.51, 1.05)		0.86 (0.55, 1.36)	
Gestational diabetes				0.331		0.626
No	398 (21.0)	1498 (79.0)	1		1	
Yes	37 (24.3)	115 (75.5)	0.82 (0.56, 1.21)		0.89 (0.55, 1.44)	

Table 2 (continued)

	Initiation of breastfeeding in the first hour of life		Bivariate analysis		Multivariate analysis	
	No n (%) N=435	Yes n (%) N=1613	OR 95% CI	P value	OR 95% CI	P value
APP				0.130		0.280
No	418 (21.6)	1520 (78.4)	1		1	
Yes	17 (15.5)	93 (84.5)	1.50 (0.88, 2.55)		1.44 (0.75, 2.76)	
Fertility treatment				0.024		0.955
No	363 (20.4)	1413 (79.6)	1		1	
Yes	72 (26.5)	200 (73.5)	0.71 (0.53, 0.95)		1.01 (0.68, 1.50)	
Parity				<0.001		0.473
Primiparous	383 (24.4)	1189 (75.6)	1		1	
Multiparous	52 (10.9)	424 (89.1)	2.62 (1.92, 3.58)		0.50 (0.08, 3.30)	
Antenatal classes				0.107		0.019
No	61 (19.1)	258 (80.9)	1		1	
Yes, < 5 classes	101 (24.9)	304 (75.1)	0.71 (0.49, 1.01)	0.063	1.04 (0.64, 1.69)	0.867
Yes, at least 5 classes	273 (20.6)	1051 (79.4)	0.91 (0.66, 1.24)	0.551	1.56 (1.01, 2.42)	0.050
Induction of Labor				<0.001		0.480
No	194 (17.2)	937 (82.8)	1		1	
Yes	241 (21.2)	676 (73.7)	0.58 (0.46, 0.71)		0.90 (0.67, 1.21)	
Birth plan				<0.001		0.089
No	199 (23.5)	649 (76.5)	1		1	
Yes, but it wasn't respected	108 (36.1)	191 (63.9)	0.52 (0.40, 0.72)		1.16 (0.86, 1.59)	0.333
Yes, and it was mostly respected	128 (14.2)	773 (85.8)	1.85 (1.44, 2.36)		1.58 (1.01, 2.42)	0.031
Problems during childbirth				<0.001		0.563
No	286 (17.7)	1331 (82.3)	1		1	
Yes	149 (34.6)	282 (65.4)	0.40 (0.32, 0.51)		0.91 (0.66, 1.26)	
Use of oxytocin during birth/labor				<0.001		0.317
No	132 (15.9)	698 (84.1)	1		1	
Yes	303 (24.9)	915 (75.1)	0.57 (0.45, 0.71)		1.18 (0.85, 1.65)	
Epidural anesthesia				<0.001		0.283
No	44 (11.9)	325 (88.1)	1			
Yes	391 (23.3)	1288 (76.7)	0.45 (0.32, 0.62)		0.79 (0.51, 1.22)	
Nitrous oxide				<0.001		0.956
No	401 (20.2)	1587 (79.8)	1		1	
Yes	34 (56.7)	26 (43.3)	0.19 (0.11, 0.32)		1.02 (0.52, 2.01)	
General anesthesia				0.177		0.733
No	411 (21.0)	1548 (79.0)	1		1	
Yes	24 (27.0)	65 (73.4)	0.72 (0.44, 1.16)		1.09 (0.59, 2.02)	
Type of birth				<0.001		0.034
Eutocic	135 (11.3)	1063 (88.7)	1		1	
Instrumental	76 (18.8)	329 (81.2)	0.55 (0.40, 0.74)		0.98 (0.66, 1.48)	0.938
Planned cesarean section	23 (26.1)	65 (73.9)	0.35 (0.21, 0.59)		1.06 (0.25, 4.56)	0.937
Emergency cesarean section	201 (56.3)	156 (43.7)	0.09 (0.07, 0.13)		0.43 (0.11, 1.64)	0.209
Episiotomy				0.019		0.524
No	360 (22.3)	1251 (77.7)	1		1	
Yes	75 (17.2)	362 (82.8)	1.38 (1.05, 1.82)		1.13 (0.77, 1.67)	
Tear grade III-IV				0.433		0.265
No	412 (21.1)	1542 (78.0)	1		1	
Yes	23 (24.5)	71 (75.5)	0.82 (0.51, 1.33)		0.72 (0.40, 1.29)	
Breastfeeding previous children				<0.001		0.004
No, this is my first child	387 (24.5)	1193 (75.5)	1		1	
I did not breastfeed my previous children	8(21.6)	29 (78.4)	1.18 (0.53, 2.59)	0.688	0.82 (0.20, 3.32)	0.776

Table 2 (continued)

	Initiation of breastfeeding in the first hour of life		Bivariate analysis		Multivariate analysis	
	No n (%) N=435	Yes n (%) N=1613	OR 95% CI	P value	OR 95% CI	P value
Yes	40 (9.3)	391 (90.7)	3.17 (2.25, 4.48)	<0.001	3.57 (1.09, 11.63)	0.036
Skin-to-skin				<0.001		<0.001
No	200 (72.2)	77 (27.8)	1		1	
Yes, but less than 50 min	86 (39.6)	131 (60.4)	3.95 (2.71, 5.77)	<0.001	2.69 (1.70, 4.29)	<0.001
Yes, between 50 and 120 min	34 (13.6)	216 (86.4)	16.50 (10.55, 25.80)	<0.001	9.64 (5.61, 16.55)	<0.001
Yes, at least 120 min	115 (8.8)	1189 (91.2)	26.85 (19.40, 37.17)	<0.001	13.33 (8.55, 20.80)	<0.001
Maternal admission following birth				<0.001		0.119
No	418 (20.7)	1603 (79.3)	1		1	
Yes	17 (63.0)	10 (37.0)	0.37 (0.21, 0.64)		0.45 (0.17, 1.23)	

**Fig. 1** Proportion of breastfeeding and non-breastfeeding mothers according to percentile scores on the CARE-MQ scale

study that decreases the possibility of breastfeeding at discharge.

In addition to skin-to-skin contact, attendance at antenatal classes and having previous experience in breastfeeding are factors that influence breastfeeding and that have already been described by different authors [32–39].

Attendance at antenatal classes was associated [34] with a higher probability of breastfeeding at discharge-Haga clic o pulse aquí para escribir text [32–34, 36]. Previous breastfeeding experience significantly impacts breastfeeding, as mothers with previous experience tend to show greater confidence, self-efficacy, motivation, and intention to breastfeed [37, 39]. However, these positive

Table 3 Sociodemographic and obstetric factors of women in this study based on breastfeeding at discharge. Multivariate analysis

Variable	Breastfeeding at discharge		Bivariate analysis		Multivariate analysis	
	No n (%) N= 508	Yes n (%) N= 1498	OR 95% CI	P value	OR 95% CI	P value
Maternal age Mean (SD)	33.7 (3.95)	33.4 (3.98)	0.98 (0.95, 1.00)	0.127	0.96 (0.93, 0.99)	0.005
CARE-MQ (Grouped by percentiles)				< 0.001		0.794
Percentile < 50	199 (20.2)	788 (79.8)	1		1	
Percentile 50–74	145 (28.6)	362 (71.4)	0.63 (0.49, 0.80)	< 0.001	0.90 (0.68, 1.20)	0.472
Percentile 75–89	89 (31.3)	195 (68.7)	0.55 (0.41, 0.74)	< 0.001	0.90 (0.63, 1.29)	0.569
Percentile ≥ 90	75 (32.9)	153 (67.1)	0.51 (0.37, 0.70)	< 0.001	1.05 (0.70, 1.57)	0.819
Family income				0.008		0.029
< 1000 euros	12 (40.0)	18 (60.0)	1		1	
1000–1999 euros	100 (30.9)	224 (69.1)	1.49 (0.69, 3.21)	0.306	1.89 (0.81, 4.43)	0.144
2000–2999 euros	192 (26.3)	538 (73.7)	1.86 (0.88, 3.95)	0.102	2.23 (0.96, 5.16)	0.062
3000–3999 euros	123 (21.8)	441 (78.2)	2.39 (1.12, 5.09)	0.024	2.96 (1.26, 6.95)	0.012
≥4000 euros	81 (22.6)	277 (77.4)	2.28 (1.05, 4.93)	0.036	2.50 (1.05, 5.95)	0.039
Partner support				0.299		0.484
None	13 (41.9)	18 (58.1)	1		1	
Little	10 (24.4)	13 (75.6)	2.23 (0.81, 6.13)	0.117	2.09 (0.66, 6.69)	0.212
Some	31 (27.0)	84 (73.0)	1.95 (0.85, 4.46)	0.110	2.17 (0.84, 5.62)	0.108
Sufficient	125 (25.8)	359 (74.2)	2.07 (0.98, 4.35)	0.054	1.53 (0.65, 3.61)	0.336
A lot	329 (24.6)	1006 (75.4)	2.20 (1.07, 4.55)	0.032	1.62 (0.70, 3.76)	0.262
Planned pregnancy				0.769		0.391
No	33 (24.3)	103 (75.7)	1		1	
Yes	475 (25.4)	1395 (74.6)	0.94 (0.62, 1.41)		0.81 (0.51, 1.31)	
Gestational age at birth				< 0.001		0.017
Term	469 (24.3)	1460 (75.7)	1		1	
Moderate premature	39 (50.6)	38 (49.4)	0.31 (0.20, 0.50)		0.50 (0.28, 0.88)	
Twin pregnancy				< 0.001		0.038
No	491 (24.8)	1490 (75.2)	1		1	
Yes	17 (70.8)	7 (29.2)	0.13 (0.05, 0.32)		0.33 (0.12, 0.94)	
Previous cesarean				< 0.001		0.952
No	365 (23.2)	1206 (76.8)	1		1	
One	138 (34.4)	263 (65.6)	0.57 (0.45, 0.73)	< 0.001	1.20 (0.38, 3.87)	0.755
Two or more	5 (14.7)	29 (85.3)	1.75 (0.67, 4.56)	0.249	1.36 (0.12, 15.26)	0.802
Number of pregnancies				0.004		0.795
One	350 (27.7)	913 (72.3)	1		1	
Two	112 (20.5)	434 (79.5)	1.48 (1.16, 1.89)	0.001	1.05 (0.68, 1.65)	0.817
Three or more	46 (23.4)	151 (76.6)	1.25 (0.88, 1.79)	0.201	0.88 (0.44, 1.77)	0.719
Number of vaginal births				< 0.001		0.280
None	132 (37.5)	220 (62.5)	1		1	
One	316 (24.5)	976 (75.5)	1.85 (1.44, 2.38)	< 0.001	1.67 (0.48, 5.75)	0.493
Two or more	60 (16.6)	302 (83.4)	3.02 (2.12, 4.29)	< 0.001	1.31 (0.13, 12.89)	0.992
Number of miscarriages				0.678		0.865
None	363 (24.9)	1096 (75.1)	1		1	
One	105 (26.0)	299 (74.0)	0.94 (0.73, 1.21)	0.649	0.90 (0.61, 1.33)	0.591
Two or more	40 (28.0)	103 (72.0)	0.85 (0.58, 1.25)	0.416	0.92 (0.50, 1.71)	0.795
HT during pregnancy				0.355		0.817
No	461 (25.1)	1379 (74.9)	1		1	
Yes	47 (28.3)	119 (71.7)	0.84 (0.56, 1.20)		1.05 (0.70, 1.57)	
Gestational diabetes				0.044		0.239
No	458 (24.8)	1392 (75.2)	1		1	
Yes	50 (32.1)	106 (67.9)	0.69 (0.49, 0.99)		0.79 (0.53, 1.17)	
APP				0.078		0.228
No	422 (24.3)	1313 (75.7)	1		1	

Table 3 (continued)

Variable	Breastfeeding at discharge		Bivariate analysis		Multivariate analysis	
	No n (%) N=508	Yes n (%) N=1498	OR 95% CI	P value	OR 95% CI	P value
Yes	86 (31.7)	185 (68.3)	0.69 (0.46, 1.04)		0.74 (0.50, 1.20)	
Fertility treatment				0.009		0.666
No	363 (20.4)	1413 (79.6)	1		1	
Yes	72 (26.5)	200 (73.5)	0.69 (0.52, 0.91)		0.93 (0.66, 1.31)	
Parity				< 0.001		0.367
Primiparous	432 (28.1)	1106 (71.9)	1		1	
Multiparous	76 (16.2)	392 (83.8)	2.02 (1.54, 2.64)		2.07 (0.43, 9.97)	
Antenatal classes				< 0.001		< 0.001
No	87 (28.2)	222 (71.8)	1		1	
Yes, < 5 classes	129 (32.8)	264 (67.2)	0.80 (0.57, 1.11)	0.184	1.22 (0.81, 1.82)	0.334
Yes, at least 5 classes	292 (22.4)	1012 (77.6)	1.35 (1.02, 1.79)	0.032	2.12 (1.45, 3.07)	< 0.001
Induction of Labor				0.001		0.581
No	251 (22.4)	870 (77.6)	1		1	
Yes	257 (29.0)	628 (71.0)	0.71 (0.58, 0.86)		0.93 (0.73, 1.20)	
Birth plan				< 0.001		0.313
No	242 (28.9)	595 (71.1)	1		1	
Yes, but it wasn't respected	84 (30.0)	196 (70.0)	0.94 (0.70, 1.27)		1.21 (0.82, 1.77)	0.337
Yes, and it was mostly respected	182 (20.5)	707 (79.5)	1.58 (1.26, 1.97)		1.20 (0.93, 1.56)	0.169
Problems during childbirth				< 0.001		0.756
No	373 (23.6)	1210 (76.4)	1		1	
Yes	135 (31.9)	288 (68.1)	0.66 (0.52, 0.83)		0.96 (0.72, 1.28)	
Use of oxytocin during birth/labor				0.002		0.312
No	175 (21.7)	632 (78.3)	1		1	
Yes	333 (27.8)	866 (72.2)	0.72 (0.58, 0.89)		0.87 (0.65, 1.15)	
Epidural anesthesia				< 0.001		0.137
No	60 (17.4)	285 (82.6)	1		1	
Yes	448 (27.0)	1213 (73.0)	0.57 (0.42, 0.76)		0.76 (0.52, 1.10)	
Nitrous oxide				0.186		0.594
No	489 (25.1)	1459 (74.9)	1		1	
Yes	19 (32.8)	39 (67.2)	0.68 (0.39, 1.20)		1.22 (0.64, 2.31)	
General anesthesia				0.297		0.155
No	481 (25.1)	1435 (74.9)	1		1	
Yes	27 (30.0)	63 (70.0)	0.78 (0.49, 1.24)		0.69 (0.41, 1.15)	
Type of birth				< 0.001		0.030
Eutocic	249 (20.5)	965 (79.5)	1		1	
Instrumental	123 (29.3)	297 (70.7)	0.62 (0.48, 0.80)	< 0.001	0.84 (0.61, 1.16)	0.292
Planned cesarean section	30 (43.5)	39 (56.5)	0.33 (0.20, 0.55)	< 0.001	0.56 (0.16, 1.57)	0.379
Emergency cesarean section	106 (35.0)	197 (65.0)	0.48 (0.36, 0.63)	< 0.001	1.42 (0.43, 4.76)	0.567
Episiotomy				0.023		0.227
No	374 (24.1)	1176 (75.9)	1		1	
Yes	134 (29.4)	322 (70.6)	0.76 (0.60, 0.96)		0.82 (0.60, 1.13)	
Tear grade III-IV				0.507		0.755
No	482 (25.2)	1432 (74.8)	1		1	
Yes	26 (28.3)	66 (71.7)	0.85 (0.54, 1.36)		0.92 (0.54, 1.57)	
Initiation of breastfeeding in the first hour of life				< 0.001		< 0.001
No	246 (51.0)	236 (49.0)	1		1	
Yes	262 (51.0)	1262 (82.8)	5.02 (4.01, 6.27)		4.21 (3.13, 5.66)	
Breastfeeding previous children				< 0.001		< 0.001
No, this is my first child	432 (28.0)	1113 (72.0)	1		1	
I did not breastfeed my previous children	21 (56.8)	16 (43.2)	0.29 (0.15, 0.57)	< 0.001	0.20 (0.06, 0.65)	0.007

Table 3 (continued)

Variable	Breastfeeding at discharge		Bivariate analysis		Multivariate analysis	
	No n (%) N = 508	Yes n (%) N = 1498	OR 95% CI	P value	OR 95% CI	P value
Yes	55 (13.0)	369 (87.0)	2.60 (1.92, 3.53)	< 0.001	1.93 (0.71, 5.24)	0.200
Skin-to-skin				< 0.001		0.337
No	137 (45.5)	165 (54.6)	1		1	
Yes, but less than 50 min	70 (32.9)	143 (67.1)	1.70 (1.18, 2.44)	0.005	1.17 (0.73, 1.88)	0.503
Yes, between 50 and 120 min	70 (28.2)	178 (71.8)	2.11 (1.48, 3.02)	< 0.001	0.83 (0.50, 1.38)	0.467
Yes, at least 120 min	231 (18.6)	1012 (81.4)	3.64 (2.78, 4.76)	< 0.001	1.11 (0.71, 1.74)	0.640
Maternal admission following birth				0.043		0.154
No	500 (25.1)	1491 (74.9)	1		1	
Yes	8 (53.3)	7 (46.7)	0.53 (0.29, 0.98)		0.43 (0.13, 1.38)	
Neonatal admission				< 0.001		0.007
No	406 (22.5)	1399 (77.5)	1		1	
Yes	102 (50.7)	99 (49.3)	0.28 (0.20, 0.37)		0.74 (0.59, 0.92)	

effects may be attenuated if the previous breastfeeding experience has been negative [38]. In the present study, we also found a positive relationship between previous breastfeeding experience and attendance at antenatal classes and a greater possibility of early initiation breastfeeding and maintaining breastfeeding at discharge. However, these variables could also act as confounding factors in the relationship between disrespect during childbirth and breastfeeding, since both previous experience in breastfeeding and attendance at prenatal classes can directly influence the confidence and self-efficacy of mothers to breastfeed [39] and, therefore, directly affect the probability of initiating early breastfeeding [18], regardless of the quality of care received during childbirth. Further research on this topic would be advisable.

Regarding the study's limitations, we consider the risk of recall bias, but given that these are important life events, we believe this is unlikely. On the other hand, there is the possibility of selection bias when using an online tool to obtain information where women with greater awareness of the issue of obstetric violence and breastfeeding are more represented. In this sense, we present breastfeeding figures similar to those in other studies, and a multivariate analysis was performed to control for confounding. Another limitation of this study is the lack of specific information on the number of women members of the selected associations who gave birth in 2022. This limits the precision in characterizing the target population and prevents estimating the refusal rate. It is also possible that women with greater sensitivity to these issues are more likely to participate in breastfeeding and parenting associations, which may introduce a selection bias in the sample. Finally, given the online nature of data collection, it was not possible to include women who did not receive the emails, those without

internet access, or those lacking the technological skills necessary to answer online questionnaires.

As the consequences for the mother and the newborn of disrespectful treatment and abuse during childbirth by professionals are still not well known, the results are very incipient and derived from few studies. It is necessary to consider carrying out more studies that can confirm the results and expand knowledge on this subject.

Conclusion

In conclusion, the present study indicates an association between the perception of abuse and disrespect during childbirth and breastfeeding, observing that those women who perceive more abuse and disrespect have a lower probability of starting breastfeeding early, however, this association was not observed at the time of hospital discharge.

Acknowledgements

Not applicable.

Author contributions

Ana Ballesta Castillejos: Conceived and designed the analysis, collected the data and wrote the paper. Julián Rodríguez Almagro: Conceived and designed the analysis and performed the analysis. Silvia García De Mateos: Conceived and designed the analysis, collected the data and wrote the paper. Inmaculada Ortiz Esquinas: Collected the data and wrote the paper. Juan Miguel Martínez Galiano: Conceived and designed the analysis and performed the analysis. Antonio Hernández Martínez: Conceived and designed the analysis, performed the analysis and wrote the paper.

Funding

This study has been funded by Instituto de Salud Carlos III (ISCIII) through the project "PI22/00541" and co-funded by the European Union.

Data availability

No datasets were generated or analysed during the current study.

Declarations

Ethics approval and consent to participate

With the approval of the Clinical Research Ethics Committee of the Mancha-Centro Hospital (197-C) initially, but to ensure greater ethical endorsement, it was subsequently ratified by the University Hospital Reina Sofia of Córdoba (5615) and the University Hospital of the Integrated Healthcare Management of Ciudad Real (C-600).

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

Received: 20 September 2024 / Accepted: 9 March 2025

Published online: 18 March 2025

References

1. World Health Organization. *WHO Recommendations on Health Promotion Interventions for Maternal and Newborn Health*; ISBN 9789241508742.
2. De G, Clínica En P, Sns EL, Saila O, De Salud D. *Guía de práctica clínica sobre lactancia materna* MINISTERIO DE SANIDAD, SERVICIOS SOCIALES E IGUALDAD.
3. Lainez Valiente NG, Martínez Guerra G, de los Á, Portillo Najarro DA, Alvarenga Menéndez AF, Véliz Flores AM. Consecuencias físicas y psicológicas de La violencia obstétrica En países de Latinoamérica. *Alerta Revista Científica Del Instituto Nac De Salud*. 2023;6:70–7. <https://doi.org/10.5377/alerta.v6i1.15231>.
4. Bohren MA, Mehtash H, Fawole B, Maung TM, Balde MD, Maya E, Thwin SS, Aderoba AK, Vogel JP, Irinyenikan TA, et al. How women are treated during Facility-Based childbirth in four countries: A Cross-Sectional study with labour observations and Community-Based surveys. *Lancet*. 2019;394:1750–63. [http://doi.org/10.1016/S0140-6736\(19\)31992-0](http://doi.org/10.1016/S0140-6736(19)31992-0).
5. Martínez-Galiano JM, Martínez-Vazquez S, Rodríguez-Almagro J, Hernández-Martínez A. The magnitude of the problem of obstetric violence and its associated factors: A Cross-Sectional study. *Women Birth*. 2020. <https://doi.org/10.1016/j.wombi.2020.10.002>.
6. Martínez-Galiano JM, Martínez-Vazquez S, Rodríguez-Almagro J, Hernández-Martínez A. The magnitude of the problem of obstetric violence and its associated factors: A Cross-Sectional study. *Women Birth*. 2021;34:e526–36. <https://doi.org/10.1016/j.wombi.2020.10.002>.
7. Bohren MA, Vogel JP, Hunter EC, Lutsiv O, Makh SK, Souza JP, Aguiar C, Saraiva Coneglian F, Diniz ALA, Tunçalp Ö, et al. The mistreatment of women during childbirth in health facilities globally: A Mixed-Methods systematic review. *PLoS Med*. 2015;12. <https://doi.org/10.1371/journal.pmed.1001847>.
8. Silveira MF, Mesenburg MA, Bertoldi AD, De Mola CL, Bassani DG, Domingues MR, Stein A, Coll CV. N. The association between disrespect and abuse of women during childbirth and postpartum depression: findings from the 2015 Pelotas birth cohort study. *J Affect Disord*. 2019;256:441–7. <https://doi.org/10.1016/j.jad.2019.06.016>.
9. Hernández-Martínez A, Rodríguez-Almagro J, Molina-Alarcón M, Infante-Torres N, Rubio-Álvarez A, Martínez-Galiano JM. Perinatal factors related to Post-Traumatic stress disorder symptoms 1–5 years following birth. *Women Birth*. 2020;33:e129–35. <https://doi.org/10.1016/j.wombi.2019.03.008>.
10. He X, Zhu M, Hu C, Tao X, Li Y, Wang Q, Liu Y. Breast-Feeding and postpartum weight retention: A systematic review and Meta-Analysis. *Public Health Nutr*. 2015;18:3308–16. <https://doi.org/10.1017/S1368980015000828>.
11. Athukorala C, Rumbold AR, Willson KJ, Crowther CA. The risk of adverse pregnancy outcomes in women who are overweight or obese. *BMC Pregnancy Childbirth*. 2010;10. <https://doi.org/10.1186/1471-2393-10-56>.
12. Hadley EE, Discacciati A, Costantine MM, Munn MB, Pacheco LD, Saade GR, Chiossi G. Maternal obesity is associated with chorioamnionitis and earlier indicated preterm delivery among expectantly managed women with preterm premature rupture of membranes. *J Maternal-Fetal Neonatal Med*. 2019;32:271–8. <https://doi.org/10.1080/14767058.2017.1378329>.
13. Masho SW, Cha S, Morris MR. Prepregnancy obesity and breastfeeding noninitiation in the united States: an examination of Racial and ethnic differences. *Breastfeed Med*. 2015;10:253–62. <https://doi.org/10.1089/bfm.2015.0006>.
14. Cohen SS, Alexander DD, Krebs NF, Young BE, Cabana MD, Erdmann P, Hays NP, Bezold CP, Levin-Spangenberg E, Turini M, et al. Factors associated with breastfeeding initiation and continuation: A Meta-Analysis. *J Pediatr*. 2018;203:190–e19621. <https://doi.org/10.1016/j.jpeds.2018.08.008>.
15. Balogun OO, Dagvadorj A, Anigo KM, Ota E, Sasaki S. Factors influencing breastfeeding exclusivity during the first 6 months of life in developing countries: A quantitative and qualitative systematic review. *Matern Child Nutr*. 2015;11:433–51. <https://doi.org/10.1111/mcn.12180>.
16. Martínez-Galiano JM, Rubio-Álvarez A, Ballesta-Castillejos A, Ortiz-Esquinas I, Donate-Manzanares M, Hernández-Martínez A. Risk of suicide and postpartum depression in women who feel they were treated inadequately during childbirth. *Women Birth*. 2025;38:101858. <https://doi.org/10.1016/j.wombi.2024.101858>.
17. Peduzzi P, Concato J, Kemper E, Holford TR, Feinstein AR. A simulation study of the number of events per variable in logistic regression analysis. *J Clin Epidemiol*. 1996;49:1373–9. [https://doi.org/10.1016/S0895-4356\(96\)00236-3](https://doi.org/10.1016/S0895-4356(96)00236-3).
18. Vila-Candel R, Soriano-Vidal FJ, Murillo-Llorente M, Pérez-Bermejo M, Castro-Sánchez E. [Maintenance of exclusive breastfeeding after three months postpartum: an experience in a health department of a Valencian community]. *Aten Primaria*. 2019;51:91–8. <https://doi.org/10.1016/J.APRIM.2017.09.002>.
19. Hernández-Martínez A, Rodríguez-Almagro J, Manzanares MD, Esquinas IO, Álvarez AR, Ballesta-Castillejos A, Torres NI, de Mateos SG, Trujillo VG, Martínez-Galiano JM. Instrument to evaluate the perception of abuse and/or disrespectful treatment during childbirth: A validation study. *Midwifery*. 2024;104:118. <https://doi.org/10.1016/j.midw.2024.104118>.
20. Leite TH, Marques ES, Corrêa RG, Leal MdoC, Olegário B, da CD, Costa RMda, Mesenburg MA. Epidemiology of obstetric violence: A narrative review of the Brazilian context. *Cien Saude Colet*. 2024;29. <https://doi.org/10.1590/1413-81232024299.12222023en>.
21. Chen J, Lai X, Zhou L, Retnakaran R, Wen SW, Krewski D, Huang L, Li M, Xie R. Association between exclusive breastfeeding and postpartum Post-Traumatic stress disorder. *Int Breastfeed J*. 2022;17. <https://doi.org/10.1186/s13006-022-00519-z>.
22. Iyengar AS, Ein-Dor T, Zhang EX, Chan SJ, Kaimal AJ, Dekel S. Increased traumatic childbirth and postpartum depression and lack of exclusive breastfeeding in black and Latinx individuals. *Int J Gynaecol Obstet*. 2022;158:759–61. <https://doi.org/10.1002/ijgo.14280>.
23. Leite TH, Marques ES, Mesenburg MA, Freitas da Silveira M, Leal M. do C. The Effect of Obstetric Violence during Childbirth on Breastfeeding: Findings from a Perinatal Cohort Birth in Brazil. *The Lancet Regional Health - Americas* 2023, 19, 100438. <https://doi.org/10.1016/j.lana.2023.100438>.
24. Kitano N, Nomura K, Kido M, Murakami K, Ohkubo T, Ueno M, Sugimoto M. Combined effects of maternal age and parity on successful initiation of exclusive breastfeeding. *Prev Med Rep*. 2016;3:121–6. <https://doi.org/10.1016/j.pmedr.2015.12.010>.
25. Senarath U, Dibley MJ, Agho KE. Factors associated with nonexclusive breastfeeding in 5 East and Southeast Asian countries: A multilevel analysis. *J Hum Lactation*. 2010;26:248–57. <https://doi.org/10.1177/0890334409357562>.
26. Whipps MDM. Education attainment and parity explain the relationship between maternal age and breastfeeding duration in U.S. Mothers. *J Hum Lactation*. 2017;33:220–4. <https://doi.org/10.1177/0890334416679385>.
27. Wu Q, Tang N, Wacharasin C. Factors influencing exclusive breastfeeding for 6 months postpartum: A systematic review. *Int J Nurs Knowl*. 2022;33:290–303. <https://doi.org/10.1111/2047-3095.12360>.
28. Whitford HM, Wallis SK, Dowsnell T, West HM, Renfrew MJ. Breastfeeding education and support for women with twins or higher order multiples. *Cochrane Database Syst Reviews*. 2017;2017. <https://doi.org/10.1002/14651858.CD012003.pub2>.
29. Yokoyama Y, Wada S, Sugimoto M, Katayama M, Saito M, Sono J. Breastfeeding rates among singletons, twins and triplets in Japan: A Population-Based study. *Twin Res Hum Genet*. 2006;9:298–302. <https://doi.org/10.1375/183242706776382347>.
30. Eidelman AI, Schanler RJ, Johnston M, Landers S, Noble L, Szucs K, Viehmann L. Breastfeeding and the use of human milk. *Pediatrics*. 2012;129:e827–41. <https://doi.org/10.1542/peds.2011-3552>.
31. Sokou R, Parastatidou S, Ioakeimidis G, Tavoulari E-F, Makrogianni A, Isaakidou E, Iacovidou N, Konstantinidi A. Breastfeeding in neonates admitted to an NICU: 18-Month Follow-Up. *Nutrients*. 2022;14:3841. <https://doi.org/10.3390/nu14183841>.
32. Chipjola R, Chiu H-Y, Huda MH, Lin Y-M, Kuo S-Y. Effectiveness of Theory-Based educational interventions on breastfeeding Self-Efficacy and exclusive

- breastfeeding: A systematic review and Meta-Analysis. *Int J Nurs Stud.* 2020;109:103675. <https://doi.org/10.1016/j.ijnurstu.2020.103675>.
33. Wong MS, Mou H, Chien WT. Effectiveness of educational and supportive intervention for primiparous women on breastfeeding related outcomes and breastfeeding Self-Efficacy: A systematic review and Meta-Analysis. *Int J Nurs Stud.* 2021;117:103874. <https://doi.org/10.1016/j.ijnurstu.2021.103874>.
 34. Lau Y, Tha PH, Ho-Lim SST, Wong LY, Lim PI, Citra Nurfarah BZM, Shorey S. An analysis of the effects of intrapartum factors, neonatal characteristics, and Skin-to-skin contact on early breastfeeding initiation. *Matern Child Nutr.* 2018;14. <https://doi.org/10.1111/mcn.12492>.
 35. Patel A, Bucher S, Pusdekar Y, Esamai F, Krebs NF, Goudar SS, Chomba E, Garces A, Pasha O, Saleem S, et al. Rates and determinants of early initiation of breastfeeding and exclusive breast feeding at 42 days postnatal in six low and Middle-Income countries: A prospective cohort study. *Reprod Health.* 2015;12. <https://doi.org/10.1186/1742-4755-12-S2-S10>.
 36. Kim B-Y. Factors that influence early breastfeeding of singletons and twins in Korea: A retrospective study. *Int Breastfeed J.* 2016;12. <https://doi.org/10.1186/s13006-016-0094-5>.
 37. Moimaz SAS, Rocha NB, Garbin CAS, Rovida TA, Saliba NA. Factors affecting intention to breastfeed of a group of Brazilian childbearing women. *Women Birth.* 2017;30:e119–24. <https://doi.org/10.1016/j.wombi.2016.10.004>.
 38. Bartle NC, Harvey K. Explaining infant feeding: the role of previous personal and vicarious experience on attitudes, subjective norms, Self-efficacy, and breastfeeding outcomes. *Br J Health Psychol.* 2017;22:763–85. <https://doi.org/10.1111/bjhp.12254>.
 39. Huang Y, Ouyang Y-Q, Redding SR. Previous breastfeeding experience and its influence on breastfeeding outcomes in subsequent births: A systematic review. *Women Birth.* 2019;32:303–9. <https://doi.org/10.1016/j.wombi.2018.09.003>.

Publisher's note

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.